

ABSTRACT OF THE DISCLOSURE

In a gas turbine power generation system having a gas turbine engine and a generator connected to the engine, maintenance ease is enhanced by forming the housing to have openable maintenance faces at two of its faces. Installation space is reduced and a compact configuration is achieved by providing a partition that divides the interior space of the housing into two regions into an upper bay and a lower bay, mounting the engine in the upper bay and mounting air intake duct in the lower bay at a location directly under the engine. Noise is reduced by using a partition to define two separate spaces (bays) and mounting the engine and the air intake duct in the upper and lower bays. Noise is also reduced by preventing engine rotation noise from escaping to the outside through the air intake duct. Moreover, it achieves a reduction in the amount of dedicated space required by constituting the air intake duct of a duct section having an air inlet at a plane coincident with that of the maintenance opening and a filter-housing section for removably housing an air filter, thereby enabling a common space to be utilized for that required in front of the maintenance opening and the air inlet.